

*malleatus* Reeve and *V. stelmaphorus* Bourguignat. Previous reports of the species from the state of Washington are restricted to a population in Green Lake at Seattle (Hanna, 1966).

The population reported here was thriving in 1973 in Lake Cascade at Moran State Park on Orcas Island, the largest and most highly tourist-oriented body of land in the San Juan Island off the Washington coast. Although I made no attempt at estimating population size, 56 individuals were secured in approximately 30 minutes from an area no larger than two square

meters. The smallest individual is 7.0 mm in total length, and the largest 44.0 mm, indicating, of course, that reproduction was occurring at that time. One shell and operculum were deposited at the Delaware Museum of Natural History (no. 106584) as a voucher specimen.

#### LITERATURE CITED

- Dundee, D. S. 1974. Catalog of introduced mollusks of eastern North America (north of Mexico). *Sterkiana* 55: 1-37.  
 Hanna, G. D. 1966. Introduced mollusks of western North America. *Occ. Pap. Calif. Acad. Sci.* 48: 1-108.

## THE POLYGYRID GENUS *McLEANIA* IN HISPANIOLA

Fred G. Thompson

Florida State Museum  
 University of Florida  
 Gainesville, Florida 32611

*Mcleania* is a genus of medium-sized depressed helicoid land snails in which the species are characterized by having a series of nodelike serrations along the peripheral keel of the shell. Until now the genus was thought to be monotypic and endemic to Puerto Rico (see van der Schalie, 1948:70) where the type species, *M. darlingtoni* Bequaert and Clench was discovered by Philip J. Darlington, Jr. in 1938. Bequaert and Clench (1939:283-284) tentatively placed *Mcleania* in the Cepolidae (= Xanthonichidae, see Baker, 1956) because of resemblances in size and shell shape to some *Hemitrochus*. Baker (1940: 55-57) demonstrated that the reproductive anatomy of *Mcleania* is similar to that of *Thysanophora*. Currently *Mcleania*, *Thysanophora*, and allied genera are placed in the Thysanophorinae, a subfamily of the Polygyridae.

During June, 1974, and January, 1976, I collected shells of two undescribed land snails from the Barahona Peninsula, Dominican Republic. One species is described in this paper. The second

remains undescribed because it is represented by a single immature shell that does not show definitive characteristics of its species. These two snails are tentatively assigned to *Mcleania* because of similarities in shell structure to *M. darlingtoni*. They differ from *M. darlingtoni* in important characteristics of the sculpture, as well as several other traits. No live specimens of the two new taxa were found, and a more satisfactory basis for relating them to *M. darlingtoni* cannot be given at this time.

Field work in the Dominican Republic was sponsored by the Florida State Museum and the National Geographic Society, Committee for Research and Exploration. I am grateful to officials of both organizations for making this field work possible.

#### *Mcleania tumidula* new species

(Fig. 1, A-C)

*Shell*.—Depressed helicoid, about 0.53-0.67 times as high as wide; medium sized, being about

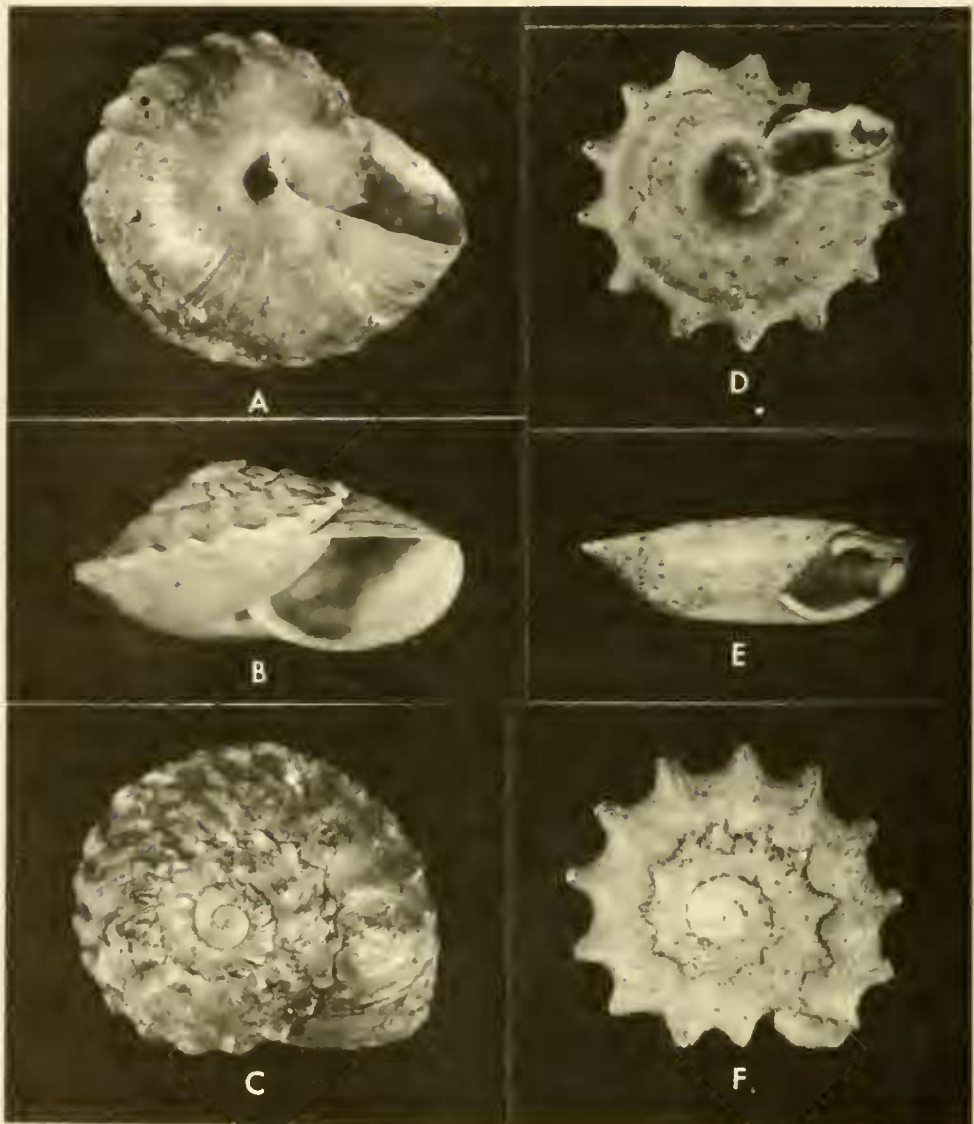


FIG. 1. A-C *Meleania tumidula* new species, holotype (UF 22736). 14.6 mm in width. D-F *Meleania darlingtoni* Be-

quaert and Clench; 30 km. N.N.W., 3 km E. Ponca, Puerto Rico, 1000-1150 m. alt. (UF 22738).

15 mm wide. Color uniform light brown. Shell opaque. Spire low, obtuse, nearly flat sided, slightly convex in outline. Base inflated. Whorls rapidly increasing in size, keeled, with about 19-21 obliquely compressed knobby serrations along the periphery that form a scalloped fold around the shell. The peripheral interior of the shell is indented beneath the knobs. Body whorls nearly flat above the periphery, strongly inflated

below; descending very slightly along its last quarter. Umbilicus narrow, about 1/25 the diameter of the shell. Umbilicus partially obscured by reflected columella. Adult shell with 3.6 whorls, and having 1.4 embryonic whorls. First embryonic whorl smooth. Subsequent embryonic portion with weak incremental growth wrinkles. First quarter of post-embryonic whorl with fine incremental thread-striations that are

replaced rapidly by heavy cord-like folds extending halfway across the whorl from the suture. Folds more or less alternating with compressed knobs along the periphery. Superimposed on the cords is an oblique series of irregular, fine zig-zag striations that tend to become corrugated near the periphery and on the knobs. Base of shell with fine, irregular, incremental striations bearing superimposed and finer, short, scattered, zig-zag striations that tend to corrugate the base. Aperture broadly auriculate, deeply indented by previous whorl. Peristome simple, thin, weakly reflected, incomplete across parietal wall. Dorsal lip nearly straight. Columellar margin moderately reflected over umbilical area. Parietal callus thin, transparent, strongly recurved near umbilicum, nearly straight otherwise.

Measurements in mm of the three known specimens are:

	Height	Width	Aperture H	Aperture W	Whorls
Holotype	7.7	14.6	4.6	8.3	3.6
Paratype	6.8	10.6	5.0	6.5	3.5
Paratype	5.9	8.8	4.5	5.7	3.3

*Type Locality*—Dominican Republic, Barahona Prov., Loma Caña Brava, 6 km. E, 6 km. NNE Polo, 1370 m. alt. Holotype: UF 22736; collected 18 January, 1976 by Fred G. Thompson. Paratypes: UF 22735(2); same locality as the holotype.

The type locality is in a wet mountain forest at the crest of the mountain Loma Caña Brava. The microhabitat occupied by the snail was not determined for live specimens were not encountered. The shells comprising the type series were found on the ground under limestone slabs on densely shaded moss and lichen covered knolls.

*Remarks*—*Meleania tumidula* can be compared with two other species, *M. darlingtoni* from Puer to Rico and another undescribed species from Hispaniola to which it is more closely related. It differs from *M. darlingtoni* in numerous details. The shell is much larger, attaining a major diameter of about 15 mm. It has a broadly obtuse raised spire, resulting in a height/width ratio of about 0.53-0.67. The whorls are much more inflated, and have more (19-21) but much weaker

serrated nodes per whorl along the periphery. The umbilicus is much narrower, being about 1/25 the width of the shell. The peristome is incomplete across the parietal wall, and the outer lip is only slightly reflected. The periostracum is nearly smooth, having weak incremental striations and poorly defined oblique anastomosing wrinkles. The embryonic whorls are smooth initially, with weak incremental sculpture following the first whorl.

*M. darlingtoni* is characterized by numerous peculiarities (Fig. 1, D-F). It attains a major diameter of about 12 mm, and is planispiral with a height/width ratio of about 0.36-0.38. The whorls are relatively small in caliber and have about 12-16 strong protruding nodes along the periphery. The umbilicus is very broad and funnel shaped, being about 1/3 the width of the shell. The peristome is complete and the aperture is slightly free from the preceding whorl. The lusterless periostracum bears numerous course incremental threads and fimbriations that form scattered tufts on the base and apex. The peripheral serrations are coarsely marked with radial periostracal fimbriations. Finally, the embryonic whorls have rather course, strongly oblique anastomosing wrinkles.

The differences between *M. tumidula* and *M. darlingtoni* are numerous and of such a magnitude that a congeneric assignment of the two species is only provisional. Most fundamental of these differences is the sculpture. Until the soft anatomy of *M. tumidula* is investigated the systematic relationships and biogeographic implications must be interpreted with caution.

An additional undescribed *Meleania* occurs in the Sierra de la Salle north of Pedernales, Pedernales Prov., Dominican Republic. A single immature shell (UF 22737) was collected 1 km. south of Altigracia, at 750 m. altitude in a cacao grove. Compared to *M. tumidula* this other species has course, irregular radial sculpture on the spire, is nearly planispiral, and has a wide umbilicus that is about 1/6 the diameter of the shell. In other aspects it is more like *M. tumidula* than *M. darlingtoni*.

## LITERATURE CITED

- Baker, H. B. 1956. Family names in Pulmonata. *The Nautilus* **69**: 128-139.
- Baker, H. B. 1940. Some Antillean Sagdidae and Polygyridae. *The Nautilus* **54**: 54-62.

- Clench, Wm. J. and J. Bequaert. 1939. *Melcania*, a new genus of land mollusks from Puerto Rico. *Memorias de la Sociedad Cubana de Historia Natural* **13**: 283-284; pl. 36, fig. 4-6.
- van der Schalie, H. 1948. The land and fresh-water mollusks of Puerto Rico. *Misc. Publ. Museum of Zool. Univ. Mich.* **70**: 1-133; pls. I-XIV.

## RECENT DEATHS

**Alberto Carcelles**, well-known and leading malacologist of Argentina, died January 23, 1977, in Alta Gracia, Córdoba, Argentina, at the age of 81. Dr. Carcelles taught at the University in Buenos Aires and was for years Chief of the Invertebrate Section, in the Museo Argentina de Ciencias Naturales. He was born in Buenos Aires on July 18, 1897. He authored many works on the marine mollusks of Uruguay and Patagonia. Among his students was Dr. J. J. Parodiz of Pittsburgh, Pa.

**John Dyas Parker**, malacological archivist for the Delaware Museum of Natural History and long-time assistant to Henry A. Pilsbry at the Academy of Natural Sciences of Philadelphia, died February 2, 1977, of a heart attack, in Pennsylvania, at 61. He stimulated interest in mollusks among amateurs who funded the Pilsbry Chair of Malacology, and was a co-founder of the Philadelphia and Wilmington Shell Clubs. He was active in paleontological field work and cave exploration. Jack was born June 5, 1915, in Woodhaven, Long Island, N. Y. where he is now buried.

**Willard Lee Mohorter**, former publisher and private shell collector, died October 19, 1976, in Cincinnati, Ohio, at the age of 88. He and his late wife travelled extensively from 1936 to 1975 in search of mollusks. He was honorary curator of mollusks at the Cincinnati Museum of Natural History and donated part of his collection to that institution. He was born in Kiamensi, Delaware,

October 4, 1888. A short, posthumous biography of "Mr. Mo" appeared in the *Hawaiian Shell News*, February 1977.

**Esther Brooks Hadley**, well-known shell dealer in Newton, Massachusetts since 1936, died in North Adams, Massachusetts, on September 9, 1976 at age 87. Formerly, she worked for the Veterans Administration in Boston. She and her late husband, F. Knight Hadley, operated a shell mail order business for forty years. Her collection is for sale by her son, Norman, of Jacksonville, Vermont 05432.

**Kenneth R(ichard) H(odgson) Read**, biochemist and marine biologist at Boston University, died February 24, 1977, at 48, in Boston, Mass. He was well-known for his underwater photography, and published on myoglobins in mollusks. He was born September 9, 1928, in Dinas Powis, Wales, and obtained a Ph. D. at Harvard University in 1963.

**Albert B(ernhard) Kettell**, for years a pastor of the United Church of Christ in New England, an Army Chaplain during World War II, and an ardent shell collector, was born in Somerville, Mass., March 7, 1896. He was a member of the A.M.U. for 25 years and a former President of the Connecticut Valley Shell Club. Reverend Kettell amassed a large collection of shells, and retired to Clearwater, Florida, where he died December 30, 1976, at the age of 81. He is survived by his wife, Clara Dito Kettell. See *American Malacologists*, 1975 supplement, p. 555.